Serial Number: 09/945512 Filing Date: August 30, 2001

Dkt.: 1303.027US1

Title: IN SERVICE PROGRAMMABLE LOGIC ARRAYS WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS

## IN THE SPECIFICATION

## The paragraph beginning at page 20, line 13 is amended as follows:

The tunneling current in erasing charge from the floating gate 705 by tunneling to the control gate 713 will then be as shown in Figure 7B given by an equation of the form:

$$J = B \exp(-Eo/E)$$

$$J = \frac{q^2 E^2}{4\pi h \Phi} e^{-E_0/E} \quad E_0 = \frac{8\pi}{3} \frac{\sqrt{2mq} \Phi^{3/2}}{h}$$

where E is the electric field across the interpoly dielectric insulator 707 and Eo depends on the barrier height. Practical values of current densities for aluminum oxide which has a current density of 1 A/cm<sup>2</sup> at a field of about  $E = 1V/20A = 5x10^{+6}$  V/cm are evidenced in a description by Pollack. (See generally, S. R. Pollack and C. E. Morris, "Tunneling through gaseous oxidized films of Al<sub>2</sub>O<sub>3</sub>," Trans. AIME, Vol. 233, p. 497, 1965). Practical current densities for silicon oxide transistor gate insulators which has a current density of 1 A/cm<sup>2</sup> at a field of about  $E = 2.3V/23A = 1x10^{+7}$  V/cm are evidenced in a description by T. P. Ma et al. (See generally, T. P. Ma et al., "Tunneling leakage current in ultrathin (<a4 nm) nitride/oxide stack dielectrics," IEEE Electron Device Letters, vol. 19, no. 10, pp. 388-390, 1998).